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Subject: Jan 2016 104(e) Follow up
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Attachments: [logo.jpg](#)
[SKMBT_75416060209500.pdf](#)

Krista:

Following up on your call with Bill Hatfield yesterday, please find attached a complete copy of the 1989 ACO between GAF and NJDEP. Please let us know if you require anything further. Thank you.

Regards,

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State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT

Michele M. Putnam
Deputy Director
Hazardous Waste Operations

John J. Trela, Ph.D., Director

Lance R. Miller
Deputy Director
Responsible Party Remedial Action

16 JUN 1989

IN THE MATTER OF	:	ADMINISTRATIVE
GAF CHEMICALS CORPORATION	:	CONSENT
LINDEN	:	ORDER

This Order is issued pursuant to the authority vested in the Commissioner of the New Jersey Department of Environmental Protection (hereinafter "NJDEP" or the "Department") by N.J.S.A. 13:1D-1 et seq. and the Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq., the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq., and the Spill Compensation and Control Act, N.J.S.A. 58:10-23.11 et seq., and duly delegated to the Assistant Director for Responsible Party Cleanups for the Division of Hazardous Waste Management pursuant to N.J.S.A. 13:1B-4.

FINDINGS

1. The GAF Chemicals Corporation, an indirect wholly owned subsidiary of GAF Corporation, presently owns and operates a chemical manufacturing facility located on South Wood Avenue, Block 587, Lots 1 and 2.1, City of Linden, Union County, New Jersey (hereinafter "the Site"). Hereinafter, the term "GAF" is understood to refer to GAF Chemicals Corporation and its predecessors.

2. Dyestuff and pigment manufacturing began at the Site in 1919. The Site has been continuously utilized as a chemical manufacturing facility from 1919 through to the present. Wastes from the Site operations have been disposed of both on and off site. On-site waste disposal facilities, which are also solid waste management units pursuant to the Resource Conservation and Recovery Act (hereinafter "RCRA") and the Hazardous and Solid Waste Amendments (hereinafter "HSWA"), include, but are not limited to, two landfills that are not currently used, a network of unlined topographical depressions and channels (hereinafter "the ditch system") used to convey waste waters, a waste water treatment facility (hereinafter "WWTF"), and a former indoor storage area for drummed hazardous wastes. GAF asserts that not all of the above listed units are solid waste management units for the purposes of RCRA. GAF currently conducts operations such as chemical manufacturing, warehousing, administration, production, quality control laboratories, maintenance, and technical services in eleven buildings onsite. In addition, there are six inactive buildings at the Site.

3. GAF has advised the Department that Grasselli Chemicals Company began operations in this general area of Linden in 1885, although the

portion of the former Grasselli property, which is now owned by GAF, was not utilized for chemical manufacturing until approximately 1919. It became Grasselli Dyestuff Company and was subsequently incorporated in 1929 as American I.G. Chemical Corporation, which was owned by I.G. Farbenindustrie A.G., a German company. The U.S. company's name was changed in 1939 to General Aniline and Film Corporation. In 1942, 98% of the company stock was seized by the United States Justice Department as a war asset and the facility was operated by the U.S. Government as Alien Property Custodian until 1965, when the U.S. Government sold the stock to the public in a public offering. On April 24, 1968, General Aniline and Film Corporation changed its name to GAF Corporation. In 1986, GAF Chemicals Corporation was incorporated, and all of the assets of the former Chemicals Division of GAF Corporation were transferred to GAF Chemicals Corporation.

4. GAF has advised the Department that the product categories that have been manufactured at the Site include surfactants, dyestuffs, pigments, industrial chemicals, and metal speciality products. The following general categories of compounds were the primary products manufactured by the various operators of the facility during the time frames specified in paragraph number 3:

<u>Production Commenced</u>	<u>Materials Produced</u>	<u>Production Ceased</u>
1919	Dyestuffs	1974
1935	Igepons (Surfactants)	Still in production
1940	Igepals (Surfactants)	Still in production
1941	Carbonyl Iron Powders (Iron Pentacarbonyl)	Late 1940s
1945	Reppe Chemistry Pilot Plant	1957
1955	Caustic Chlorine	1971
1957	Ethylene Oxide	1971
1958	Phosphate Ester Surfactants	Still in production
1962	Agricultural Herbicides, Amino Type Compounds including Amiben	1977
1963	Low Foamers (Surfactants)	Still in production
1964	Polyclar (Polyvinyl pyrrolidone, food grade beer clarifier)	1968
1965	Gantrez Half Esters	1969
1966	Ganex	Still in production
1970	Gafquat 755	Still in production
1975	Propoxylations (Propylene Oxide Surfactants)	Still in production
1976	Tetrahydrofuran	Still in production

Currently, only tetrahydrofuran, surfactants, Gafquat 755 and Ganex are manufactured by GAF at the site.

5. Past chemical manufacturing operations at the Site generated numerous solid and liquid wastes including, but not limited to:

- a. Phenol
- b. Arsenic Wastes including arsenic acid
- c. Mercury Compounds (entrained metallic mercury in dilute sulfuric acid solution, mercuric sulfate)
- d. Chlorinated hydrocarbon compounds from still residues.
- e. Amiben and other amino type agricultural herbicides

GAF states that present manufacturing operations at the site generate phenol wastes, spent caustic, tetrahydrofuran bottoms and waste water from cleaning process equipment.

These substances were disposed of both offsite and onsite. With regard to the onsite disposal, this was accomplished through burial in landfills or through discharge into the ditch system as part of the Site's waste water stream described in paragraphs 9, 10 and 11 below. These substances are pollutants as defined under the Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq., and the regulations promulgated pursuant thereto, N.J.A.C. 7:14A-1 et seq. These substances are hazardous wastes and/or hazardous constituents as defined under the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq. and the regulations promulgated pursuant thereto, N.J.A.C. 7:26-1.1 et seq. These substances are hazardous substances as defined under the Spill Compensation and Control Act, 58:10-23.11 et seq. and the regulations promulgated pursuant thereto, N.J.A.C. 7:1E-1.1 et seq.

6. GAF has advised that a 10 to 12 acre landfill, sometimes referred to as the "Old Landfill", is located in the southwest portion of the facility. This landfill was operated from the early 1930s until 1970 by the various owners responsible for the facility during this time period as specified in paragraph 3. In 1981, GAF submitted a Comprehensive Environmental Response, Compensation and Liability Act (hereinafter "CERCLA") Section 103(c) Notification of Hazardous Waste Site document, and on May 22, 1985, GAF submitted a RCRA and HSWA Solid Waste Management Unit Information document, which described the materials disposed in the Old Landfill. GAF advised that GAF and the various other owners deposited dry and liquid chemical wastes (organics, inorganics, solvents, heavy metals, acids), drummed materials, bulk liquids, phenolic oils, laboratory wastes, off specification products, still residues, solid wastes and industrial trash in this landfill. GAF alleges that the "Old Landfill" was operated in accordance with applicable law at the time of its operation.

7. In 1975, GAF discovered a floating organic layer on the ground water beneath the "Old Landfill". GAF installed four concrete standpipes in the "Old Landfill", also in 1975, to recover the organic layer. In 1982, GAF sampled the liquid contents in the standpipes and the analysis of these samples indicated that the liquid layer contained phenols, mercury and chlorinated hydrocarbons.

8. A drum landfill, which is located north of the "Old Landfill", was operated from July 1970 to June 1973. GAF obtained an NJDEP, Solid Waste Administration Registration, Number 20322001, dated July 24, 1970, to operate a landfill at the site. The GAF submittals described in paragraph 6 above indicate that the types of wastes disposed in this landfill included, but were not limited to, those waste types deposited in the "Old Landfill". GAF alleges that the material disposed in the drum landfill was primarily Amiben process waste and Amiben still bottoms.

9. The unlined ditch system, the network of unlined topographic depressions and channels referred to in paragraph 2 above, has served, and continues to serve, to collect and transmit waste water for disposal from the various buildings and chemical process areas throughout the Site. The waste waters include chemical process water, cooling water, and sanitary waste waters. The chemical process waste waters have contained in the past the substances listed in paragraph 5. Waste waters exit some buildings via drain pipes and floor drains directly to crawl spaces beneath the buildings which feed to the unlined ditch system. Some of the buildings have special chemical drains which lead directly to the ditch system, rather than to crawl spaces.

10. The ditch system also captures surface runoff, runoff from surface spills, and leachate seeping from the landfills described in paragraphs 6 and 8 above. Although it was not designed or constructed to contain ground water, GAF alleges that GAF's ground water investigations to date indicate ground water from a large central area of the facility, contained within the uppermost water bearing zone, is captured by the ditch system from which it is conveyed to the WWTF. GAF further alleges that ground water flowing from these areas never reaches the site boundary and does not flow off of the site.

11. Prior to 1977, untreated waste water was conveyed by the unlined ditch system to discharge points into Piles Creek and the Arthur Kill. Immediately prior to the discharge of the waste water into the Arthur Kill, lime was added to the waste water for pH adjustment and the surface of the waste water was skimmed to remove floating oil. During the conveyance of the waste water from the various sources onsite to the treatment and discharge points, the untreated waste water tended to accumulate in low lying areas in and around the ditch system. Since the low lying areas and the ditch system were unlined, infiltration of the waste water occurred. In 1977, GAF constructed the WWTF and, after that date, the ditch system was utilized to convey the waste water to the WWTF for disposal.

12. Due to the fact that the ditch system is unlined, some of the waste water and its contents infiltrate directly into the ground. Accordingly, waste waters containing pollutants, hazardous constituents, and/or hazardous substances, such as those listed in paragraph 5, from manufacturing processes at GAF were discharged into the waters and onto the lands of the State of New Jersey via the unlined ditch system described in paragraphs 9, 10, and 11.

13. GAF manufactured alpha-sulfonated anthraquinones in a building known as Building 49 until 1970. Liquid wastes and waste waters from these manufacturing operations were discharged from Building 49 into chemical

sewers which conveyed them to the ditch system. The building was constructed on pilings over fill that may have consisted of coal ash. During the conveyance of waste water from Building 49 to the treatment and discharge points, the untreated waste water tended to accumulate in low lying areas in and around the ditch system. Since the low lying areas and the ditch system were unlined, infiltration of the waste water occurred. GAF ceased manufacturing operations in Building 49 in 1970 and demolished this building in 1973. The liquid wastes and waste water discharged from Building 49 contained dilute sulfuric acid residues, mercuric sulfate and entrained metallic mercury.

14. Since 1977, GAF has operated the WWTF. The WWTF receives chemical process waste water, contact and noncontact cooling water, cooling tower and boiler blowdowns, equipment washes, sanitary waste water, air pollution control equipment wastewater and storm runoff from the GAF facility. WWTF operations include: coarse screening, oil skimming, equalization, preaeration and neutralization, aeration, clarification, and chlorination, when necessary. The effluent is discharged to the Arthur Kill.

15. GAF filed, pursuant to RCRA, a Part A permit application with the EPA in November 1980 for hazardous waste storage in containers (56,200 gallons capacity) and in an above ground tank (6,000 gallons capacity).

16. On April 5, 1984, the NJDEP, Division of Hazardous Waste Management (hereinafter "DHWM") requested submittal of the RCRA Part B permit application for the storage activities. Subsequent to this submittal, GAF decided to seek reclassification to "generator only" status by reason of its intention to cease storage of containerized hazardous wastes in excess of 90 days, and the exemption of the above ground storage tank from regulation under the hazardous waste program pursuant to N.J.A.C. 7:26-8.2(b).

17. Consistent with its intention to cease on-site storage of hazardous wastes in excess of 90 days, GAF submitted a closure plan for the container storage area in Building Number 53 on December 6, 1985 and submitted a revised partial closure plan on May 5, 1986, which the DHWM approved on July 1, 1986. The closure plan required the removal of all containerized wastes, decontamination of the floor and walls of the first floor, wipe samples of the interior of the first floor after decontamination, and soil sampling beneath and around the building. GAF implemented the partial closure plan. Wipe samples were taken and they indicated that the interior of Building 53 had been decontaminated.

18. Also, on November 17 and 19, 1986, GAF conducted soil sampling around Building Number 53 in accordance with the closure plan described in paragraph 17 above. The sample analysis results indicated contamination of the soil was present. The soil was contaminated with the following hazardous wastes, hazardous constituents, hazardous substances, and /or pollutants: volatile organics, base neutral extractables, cyanide, arsenic and various heavy metals. GAF collected six additional soil samples from beneath Building Number 53 on April 15, 1987, and on April 26, 1988, five other soil samples were collected from an adjacent area where Building Number 52 was formerly located. The analysis of these samples indicated that the soil beneath and adjacent to Building 53 and the soil beneath

Building 52 were contaminated with the following hazardous wastes, hazardous constituents, hazardous substances, and/or pollutants: toluene, total xylenes, various chlorobenzenes, various phthalates, naphthalene, nitrobenzene, and various heavy metals.

19. At a March 18, 1988 meeting between GAF and NJDEP-DHWM, representatives from GAF indicated that the soil contamination under Building Number 53 would be investigated and remediated along with other areas of soil contamination at the Site pursuant to one or more actions being negotiated with the NJDEP, Division of Water Resources. In view of the foregoing, certification of closure of the interior of Building Number 53 (the decontamination and wipe sampling phases of the interior) was submitted in accordance with the NJDEP approved closure plan on April 8, 1988.

20. In order to investigate ground water contamination at the Site, GAF installed seven monitoring wells at the Site between January 11 and January 13, 1983. GAF collected ground water samples from all seven wells on January 25, 1983. The samples were analyzed for 104 priority pollutants. The following materials were detected in the concentrations listed: benzene - 584 parts per billion (hereinafter "ppb"), chlorobenzene - 15,200 ppb, toluene - 96 ppb, phenol - 5,800 ppb, 1,2-dichlorobenzene - 907 ppb, 1,3-dichlorobenzene - 490 ppb, 1,4-dichlorobenzene - 497 ppb, naphthalene - 203 ppb, antimony - 330 ppb, arsenic - 360 ppb, cyanide - 585 ppb, and total phenolics - 13,600 ppb.

21. The following substances have been found in soil and ground water samples taken at this site as described in paragraphs 7, 18 and 20.

Arsenic
Benzene
Chlorobenzene
Chromium
Cyanide
1,2 Dichlorobenzene
1,4 Dichlorobenzene
Lead
Mercury
Naphthalene
Nitrobenzene
Phenol
Polychlorinated Biphenyl (Arochlor 1260)
Toluene

These substances are pollutants as defined under the Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq., and the regulations promulgated pursuant thereto, N.J.A.C. 7:14A-1 et seq. These substances are hazardous wastes and/or hazardous constituents as defined under the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq. and the regulations promulgated pursuant thereto, N.J.A.C. 7:26-1.1 et seq. These substances are hazardous substances as defined under the Spill Compensation and Control Act, 58:10-23.11 et seq. and the regulations promulgated pursuant thereto, N.J.A.C. 7:1E-1.1 et seq.

22. The GAF facility is regulated pursuant to the New Jersey Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq., specifically the Hazardous Waste Regulations, N.J.A.C. 7:26-1 et seq. The GAF facility is also regulated pursuant to RCRA and HSWA and is subject to the corrective action requirements contained in Sections 3004(u), 3004(v) and 3008(h) of HSWA. The State of New Jersey currently has similar corrective action authorities and therefore acts as EPA's contractor (through the FY89 RCRA Subtitle C Grant Agreement) to oversee corrective action activities at the GAF facility. In this capacity, all documents submitted pursuant to this ACO may be reviewed by EPA for comments with regard to compliance with HSWA requirements. Such comments will be transmitted to GAF by NJDEP as the lead agency for these activities. It is the intent of the involved parties to satisfy the RCRA/HSWA requirements.

23. Based on these FINDINGS, the Department alleges that GAF has violated the Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq., specifically N.J.S.A. 58:10A-6, and the regulations promulgated pursuant thereto, N.J.A.C. 7:14A-1 et seq., the Spill Compensation and Control Act, 58:10-23.11 et seq. and regulations promulgated pursuant thereto, N.J.A.C. 7:1E-1.1 et seq., and the Solid Waste Management Act N.J.S.A. 13:1E-1 et seq. and regulations promulgated pursuant thereto, N.J.A.C. 7:26-1.1 et seq. GAF alleges that it has not violated the Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq., specifically N.J.S.A. 58:10A-6, and the regulations promulgated pursuant thereto, N.J.A.C. 7:14A-1 et seq., the Spill Compensation and Control Act, 58:10-23.11 et seq. and regulations promulgated pursuant thereto, N.J.A.C. 7:1E-1.1 et seq., and the Solid Waste Management Act N.J.S.A. 13:1E-1 et seq. and regulations promulgated pursuant thereto, N.J.A.C. 7:26-1.1 et seq. In order to resolve this matter, the Department and GAF agree to enter into this ACO for the purpose of investigating and remediating all contamination at or emanating from the site.

24. Pursuant to the requirements of HSWA, the list of Solid Waste Management Units identified as continuing release sources at GAF include, but are not limited to: the "Old Landfill", the Drum Landfill, the Unlined Ditch System, and the Building 53 area.

25. To determine the nature and extent of the problem presented by the discharge of pollutants, hazardous wastes, hazardous constituents and hazardous substances both on and off of the site and to develop environmentally sound remedial actions, it is necessary to conduct a remedial investigation and feasibility study of remedial action alternatives (hereinafter "RI/FS"). To correct the problems presented by the discharge, it is necessary to implement a remedial action plan.

26. To resolve this matter without the necessity for litigation, GAF has agreed to conduct an RI/FS and to design and implement a remedial action alternative to remedy any and all pollution at the site, emanating from the site, or which has emanated from the site.

ORDER

NOW THEREFORE IT IS HEREBY ORDERED AND AGREED THAT:

A. Reimbursement of Prior Costs and Damages

27. Within thirty (30) calendar days after the effective date of this Administrative Consent Order, GAF shall submit the amount of \$31,018 to the Department as payment for all costs incurred by the Department to date, in connection with the investigation of, and response to, the matters described in the FINDINGS hereinabove, including the costs associated with the preparation of this Administrative Consent Order. Payment of the above amount shall be made by a cashier's or certified check payable to the "Treasurer, State of New Jersey" or "Administrator, New Jersey Spill Compensation Fund", as appropriate. Payment shall be submitted to the contact listed in paragraph 50. [Section IV., third paragraph]

II. Remedial Investigation and Cleanup

A. Remedial Investigation

28. Within ninety (90) calendar days after the effective date of this Administrative Consent Order, GAF shall submit to the Department a detailed draft Remedial Investigation Work Plan (hereinafter the "RI Work Plan") in accordance with the scope of work set forth in Appendices A, B and C, which are attached hereto and made a part hereof.

29. Within thirty (30) calendar days after receipt of the Department's written comments on the draft RI Work Plan, GAF shall modify the draft RI Work Plan to conform to the Department's comments and shall submit the modified RI Work Plan to the Department. The determination as to whether or not the modified RI Work Plan, as resubmitted, conforms to the Department's comments and is otherwise acceptable to the Department shall be made solely by the Department in writing.

30. Upon receipt of the Department's written final approval of the RI Work Plan, GAF shall conduct the remedial investigation in accordance with the approved RI Work Plan and the schedule therein.

31. GAF shall submit to the Department a draft Remedial Investigation Report (hereinafter "RI Report") in accordance with Appendix A and the RI Work Plan and the schedule therein. GAF and the Department agree that it is their intention to carry out the remedial investigation in the most expeditious fashion possible and the schedule for the performance of the work shall be in conformity with that agreement. Further, GAF and the Department agree that, depending upon the level of site investigation necessitated by the conditions at the Site, the performance of such a remedial investigation and the preparation of a RI Report may be accomplished within 9 to 15 months of the execution of this Administrative Consent Order.

32. If upon review of the draft RI Report the Department determines that additional remedial investigation is required, GAF shall conduct additional remedial investigation as directed by the Department and submit a second draft RI Report.

33. Within thirty (30) calendar days after receipt of the Department's written comments on the draft or second draft (only if

applicable pursuant to the preceding paragraph) RI Report, GAF shall modify the draft or second draft RI Report to conform to the Department's comments and shall submit the modified RI Report to the Department. The determination as to whether or not the modified RI Report, as resubmitted, conforms with the Department's comments and is otherwise acceptable by the Department shall be made solely by the Department in writing.

B. Feasibility Study

34. Within thirty (30) calendar days after receipt of the Department's written final approval of the RI Report, or as otherwise directed by the Department, GAF shall submit to the Department a detailed draft Feasibility Study Work Plan (hereinafter, "FS Work Plan") in accordance with the scope of work set forth in Appendix D, which is attached hereto and made a part hereof.

35. Within thirty (30) calendar days after receipt of the Department's written comments on the draft FS Work Plan, GAF shall modify the draft FS Work Plan to conform to the Department's comments and shall submit the modified FS Work Plan to the Department. The determination as to whether or not the modified FS Work Plan, as resubmitted, conforms to the Department's comments and is otherwise acceptable to the Department shall be made solely by the Department in writing.

36. Upon receipt of the Department's written final approval of the FS Work Plan, GAF shall conduct the feasibility study in accordance with the approved FS Work Plan and the schedule therein.

37. GAF shall submit to the Department a draft Feasibility Study Report (hereinafter "FS Report") in accordance with Appendix D and the approved FS Work Plan and the schedule therein. GAF and the Department agree that the preparation of a draft Feasibility Study Report shall be accomplished within 6 months of the completion of the RI Report.

38. Within thirty (30) calendar days after receipt of the Department's written comments on the draft FS Report, GAF shall modify the draft FS Report to conform to the Department's comments and shall submit the modified FS Report to the Department. The determination as to whether or not the modified FS Report, as resubmitted, conforms to the Department's comments and is otherwise acceptable to the Department shall be made solely by the Department in writing.

C. Remedial Action

39. In the event that the Department determines that remedial action is necessary, the Department will make the selection of the remedial action alternative based on the criteria set forth in Appendix D, Section I.D.

40. Within ninety (90) calendar days after receipt of the Department's written notification of selection of a remedial action alternative, GAF shall submit to the Department a detailed draft Remedial Action Plan in accordance with the scope of work set forth in Appendix E, which is attached hereto and made a part hereof. The ninety (90) day period shall be extended by the Department should the nature of the selected

remedial action alternative, in the judgment of the Department, necessitate a longer period in order to complete the remedial design work. GAF and the Department agree that it is their intention to carry out the remedial action in the most expeditious fashion possible. The detailed draft schedule which is to be prepared by GAF for the performance of the remedial action plan shall reflect this agreement.

41. Within thirty (30) calendar days after receipt of the Department's written comments on the draft Remedial Action Plan, GAF shall modify the draft Remedial Action Plan to conform to the Department's comments and shall submit the modified Remedial Action Plan to the Department. The determination as to whether or not the modified Remedial Action Plan, as resubmitted, conforms to the Department's comments and is otherwise acceptable to the Department shall be made solely by the Department in writing.

42. Upon receipt of the Department's written final approval of the Remedial Action Plan, GAF shall implement the approved Remedial Action Plan in accordance with the schedule therein.

D. Additional Remedial Investigation and Remedial Action

43. If at any time prior to GAF's receipt of written notice from the Department pursuant to paragraph 88 [i.e., the third to last paragraph in the ACO] the Department determines that the criteria set forth in Appendix D (Section I.D.) are not being achieved or that additional remedial investigation and/or remedial action is required to protect human health or the environment, GAF shall conduct such additional activities as directed by the Department.

E. Progress Reports

44. GAF shall submit to the Department quarterly progress reports; the first progress report shall be submitted on or before the 30th calendar day of the month following the first full quarter after the effective date of this Administrative Consent Order. Each progress report thereafter shall be submitted on or before the 30th calendar day of the month following the quarter being reported. Each progress report shall detail the status of GAF's compliance with this Administrative Consent Order and shall include the following:

- a. Identification of site and reference to this Administrative Consent Order;
- b. Identify specific requirements of this Administrative Consent Order (including the corresponding paragraph number or schedule) which were initiated during the reporting period;
- c. Identify specific requirements of this Administrative Consent Order (including the corresponding paragraph number or schedule) which were initiated in a previous reporting period, which are still in progress and which will continue to be carried out during the next reporting period;

- d. Identify specific requirements of this Administrative Consent Order (including the corresponding paragraph number or schedule) which were completed during this reporting period;
- e. Identify specific requirements of this Administrative Consent Order (including the corresponding paragraph numbers or schedule) which should have been completed during the reporting period and were not;
- f. An explanation of any non-compliance with any approved work plan(s), schedule(s) or Remedial Action Plan, and actions taken or to be taken to rectify non-compliance;
- g. Identify the specific requirements of this Administrative Consent Order (including the corresponding paragraph number or schedule) that will be initiated during the upcoming reporting period.

III. Permits

45. GAF shall submit complete applications for and shall timely obtain all necessary Federal, State and local permits for activities which GAF must perform in order to carry out the obligations of this Administrative Consent Order in accordance with the approved time schedules. This Administrative Consent Order shall not be construed to be a permit or in lieu of a permit for existing or former activities which require permits and it shall not relieve GAF from obtaining and complying with all applicable Federal, State and local permits necessary for any future activities which GAF must perform in order to carry out the obligations of this Administrative Consent Order.

46. With regard to permits required to carry out this Administrative Consent Order, within thirty (30) calendar days of receipt of written comments concerning any permit application to a Federal, State or local agency, or sooner if required by the permitting agency, GAF shall modify the permit application to conform to the agency's comments and resubmit the permit application to the agency. The determination as to whether or not the permit application, as resubmitted, conforms with the agency's comments or is otherwise acceptable to the agency shall be made solely by the agency in writing.

47. This Administrative Consent Order shall not preclude the Department from requiring that GAF apply for any permit or permit modification issued by the Department under the authority of the Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq., the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq., and/or any other statutory authority for the matters covered herein. The terms and conditions of any such permit or permit modification shall not be preempted by the terms and conditions of this Administrative Consent Order even if the terms and conditions of any such permit or permit modification are more stringent than the terms and conditions of this Administrative Consent Order. GAF reserves the right to contest any and all conditions of a permit or permit modification pursuant to the substantive rights and procedures established in the statutes and regulations which authorize such permits; provided, however, that GAF waives its right to contest the conditions of any such

permit or permit modification to the extent such conditions are substantially consistent with the provisions of this Administrative Consent Order; and provided further that the assertion of any such right shall neither relieve nor delay GAF's obligation to timely comply with the provisions and approved time schedules of this Administrative Consent Order.

IV. Project Coordination

48. GAF shall submit to the Department all documents required by this Administrative Consent Order, including correspondence relating to force majeure issues, by certified mail, return receipt requested or by hand delivery with an acknowledgement of receipt form for the Department's signature. The date that the Department executes the receipt or acknowledgement will be the date the Department uses to determine GAF's compliance with the requirements of this Administrative Consent Order and the applicability of stipulated penalties and any other remedies available to the Department.

49. Within seven (7) calendar days after the effective date of this Administrative Consent Order, GAF shall submit to the Department the name, title, address and telephone number of the individual who shall be the GAF's contact for the Department for all matters concerning this Administrative Consent Order. The individual identified in the following paragraph shall be the Department's contact for the GAF for all matters concerning this Administrative Consent Order.

50. GAF shall submit five (5) copies of all documents required by this Administrative Order, unless otherwise directed by the Department, to:

Melinda Dower, Chief
Bureau of Federal Case Management
NJ Department of Environmental Protection
Division of Hazardous Waste Management
401 East State Street, CN028
Trenton, NJ 08625

51. GAF shall verbally notify the contact person listed above at least 14 days prior to the initiation of any field activities, and GAF shall insure that written confirmation of that notification is received by the Department at least 7 days prior to the initiation of such activities.

V. Financial Requirements

52. GAF shall obtain and deliver to the Department financial assurances in the form of irrevocable letters of credit in the amounts and in the manner set forth herein. GAF shall also establish an irrevocable standby trust fund in the manner set forth herein. GAF hereby agrees that any failure to comply or to timely comply with any of the obligations set forth in this Paragraph 52 shall subject it to the special stipulated penalties herein.

A. IRREVOCABLE LETTERS OF CREDIT

1. Time for and Amount of Letters of Credit: Irrevocable letters of credit totalling SEVEN MILLION FIVE HUNDRED THOUSAND DOLLARS (\$7,500,000.00) shall be established at the times and in the amounts set forth below:

a. Within thirty (30) calendar days after the effective date of this Administrative Consent Order, GAF shall submit to the Department an irrevocable letter of credit in the amount of TWO MILLION DOLLARS (\$2,000,000.00).

b. Within one hundred twenty (120) calendar days after the effective date of this Administrative Consent Order, GAF shall submit to the Department another irrevocable letter of credit in the amount of TWO MILLION FIVE HUNDRED THOUSAND DOLLARS (\$2,500,000.00).

c. On or before March 31, 1990, GAF shall submit to the Department another irrevocable letter of credit in the amount of THREE MILLION DOLLARS (\$3,000,000.00).

2. Form of Letters of Credit: Each of the foregoing irrevocable letters of credit shall meet the following requirements:

a. Each shall be identical to the wording specified in Appendix F, which is attached hereto and made a part hereof;

b. Each shall be issued by a New Jersey State or Federally chartered bank, savings bank, or savings and loan association, which has its principal office in New Jersey, unless otherwise approved by the Department; and

c. Each shall be accompanied by a letter from GAF referring to the Letter of Credit by number, issuing institution and date and providing the following information: the name and address of the facility and/or site which is the subject of the Administrative Consent Order and the amount of funds securing GAF's performance of all its obligations under the Administrative Consent Order.

B. IRREVOCABLE STANDBY TRUST AGREEMENT

1. Time for and Amount of Irrevocable Standby Trust: GAF shall establish an irrevocable standby trust fund within thirty (30) calendar days after the effective date of this Administrative Consent Order, with an initial deposit of ONE THOUSAND DOLLARS (\$1,000.00).

2. Form of Irrevocable Standby Trust: The irrevocable trust fund agreement shall meet the following requirements:

a. Is identical to the wording specified in Appendix G which is attached hereto and made a part hereof;

b. The irrevocable standby trust fund shall be the depository for all funds paid pursuant to a draft by the Department against the letter of credit, provided that the Department may, at its sole option, elect to have funds associated with special stipulated penalties paid directly to the Department;

c. The trustee shall be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or New Jersey agency;

d. Is accompanied by an executed certification of acknowledgment that is identical to the wording specified in Appendix H.

C. SPECIAL STIPULATED PENALTIES & ACCELERATOR CLAUSE

1. Amount of Special Stipulated Penalties: As an exception to Paragraph 59, GAF agrees that it shall pay the special stipulated penalties set forth herein for any failure to comply or to timely comply with any of its obligations as set forth anywhere in this Paragraph 52. Each obligation which is not complied with or which is not timely complied with shall be considered a separate violation and each such violation shall be subject to daily, special stipulated penalties in accordance with the following rate schedule:

<u>Calendar Days</u> <u>After Due Date</u>	<u>Special</u> <u>Stipulated Penalties</u>
1-30	\$25,000 per calendar day
31-over	\$50,000 per calendar day

Special stipulated penalties shall continue to accrue with respect to each violation until such time as GAF shall cure each such failure by GAF to comply with any of its obligations as set forth in this Paragraph 52.

2. Accelerator Clause: Upon the passage of the thirtieth (30th) cumulative day of any failure to comply or to timely comply, whether such cumulative period arises out of one or several violations and whether such cumulative period is continuous or not, all of GAF's obligations pursuant to this Paragraph 52 shall become immediately due including, but not limited to, GAF's obligation to submit to the Department an irrevocable letter of credit in the amount of SEVEN MILLION FIVE HUNDRED THOUSAND DOLLARS (\$7,500,000.00). Any failure to timely comply with this accelerator clause shall also be subject to special stipulated penalties.

3. Time and Terms of Payment: The Department may at any time require the payment of such special stipulated penalties as may have accrued to that date, without regard as to whether GAF may have cured its failure to comply with its obligation(s) by that date. Further, special stipulated penalties shall continue to accrue until such time as the violation is cured.

At the sole discretion of the Department, the Department may either directly withdraw any special stipulated penalties which are due from the letter of credit, or may notify GAF to tender payment of such penalties in the form of a certified check payable to the "Treasurer, State of New Jersey" within twenty-one (21) calendar days. In the latter event, special stipulated penalties shall apply to any failure to tender the certified check within the twenty-one (21) day period.

4. Duty to Supplement Letter of Credit: Should the amount of any of the several letters of credit at any time fall below the applicable

amount specified in Subparagraph A. herein, whether by reason for the Department's withdrawal of special stipulated penalties or otherwise, then GAF shall within ten (10) calendar days of such an eventuality submit to the Department another irrevocable letter of credit which satisfies the applicable amount specified in Subparagraph A and all other requirements of this Paragraph 52 and the Administrative Consent Order.

5. Special Terms: Notwithstanding any other provision in this Administrative Consent Order which may be to the contrary, GAF shall have no right to any notice or any opportunity to cure any failure to timely comply with any obligation other than that which is specifically provided to GAF in this Paragraph 52. Further, it is specifically agreed and understood that GAF's obligations herein are purely financial in nature and that any delay shall not be excusable by reason of the occurrence of any cause which is or may be beyond the control of GAF, except that any delay caused as a result of action or inaction by the Department shall be subject to the normal Force Majeure provisions of this Administrative Consent Order.

6. The provisions of this Subparagraph C shall no longer apply once GAF has posted letters of credit totalling SEVEN MILLION FIVE HUNDRED THOUSAND DOLLARS (\$7,500,000.00) and has paid any special stipulated penalties which have arisen pursuant to this Subparagraph C.

53. GAF shall establish and maintain the standby trust fund until terminated by the written agreement of the Department, the trustee and GAF, or of the trustee and the Department if GAF ceases to exist. GAF shall maintain the letter of credit or performance bond until the Department provides written notification to GAF that the financial assurance is no longer required for compliance with this Administrative Consent Order. In the event that the Department determines that GAF has failed to perform any of its obligations under this Administrative Consent Order, the Department may proceed to have the financial assurance deposited into the standby trust; provided, however, that before the Department draws on the letter of credit or makes a claim against the performance bond, the Department shall notify GAF in writing of the obligation(s) which it has not performed, and GAF shall have a reasonable time, not to exceed thirty (30) calendar days, unless extended in writing by the Department, to perform such obligation(s). In the event the Department draws down on GAF's letter of credit, GAF reserves whatever rights it may have, if any, to challenge the Department's action; provided that GAF agrees that it shall not seek to interfere with nor delay the performance of any work with regard to the Site whether by the Department or by others.

54. At any time, GAF may apply to the Department to substitute other financial assurances in a form, manner and amount acceptable to the Department.

B. Project Cost Review

55. Beginning three hundred sixty-five (365) calendar days after the effective date of this Administrative Consent Order and annually thereafter on that same calendar day, GAF shall submit to the Department a detailed review of all costs required for GAF's compliance with this Administrative Consent Order. This cost review shall include a detailed

summary of all monies spent to date pursuant to this Administrative Consent Order, the estimated cost of all future expenditures required to comply with this Administrative Consent Order (including any operation and maintenance costs), and the reason for any changes from the previous cost review submitted by GAF.

56. At any time after GAF submits the first cost review pursuant to the preceding paragraph, GAF may request the Department's approval to reduce the amount of the financial assurance to reflect the remaining costs of performing its obligations under this Administrative Consent Order. If the Department grants written approval of the request, GAF may amend the amount of the then existing letter of credit or performance bond.

57. If the estimated cost of meeting GAF's obligations in this Administrative Consent Order at any time increases to an amount greater than the financial assurance, GAF shall, within fourteen (14) calendar days after receipt of written notice of the Department's determination, increase the amount of the then existing letter of credit or performance bond so that it is equal to the estimated cost as determined by the Department. GAF shall provide the amended financial assurance to the Department within seven calendar days (7) after it has been obtained.

C. Oversight Cost Reimbursement

58. Within thirty (30) calendar days after receipt from the Department of an itemized accounting of all costs incurred in connection with its oversight functions of this Administrative Consent Order for a fiscal year, or any part thereof, GAF shall submit to the Department a cashier's or certified check payable to the "Treasurer, State of New Jersey" for the full amount of the Department's oversight costs.

D. Stipulated Penalties

59. Upon a demand made by the Department, GAF shall pay stipulated penalties to the Department for its failure to comply with any of the deadlines or schedules required by this Administrative Consent Order including those established and approved by the Department in writing pursuant to this Administrative Consent Order. Each deadline or schedule not complied with shall be considered a separate violation. Payment of stipulated penalties shall be made according to the following schedule, unless the Department has modified the compliance date pursuant to the force majeure provisions hereinbelow:

<u>Calendar Days After Due Date</u>	<u>Stipulated Penalties</u>
1 - 7	\$ 500 per calendar day
8 - 14	\$ 2,000 per calendar day
15 - 21	\$ 3,000 per calendar day
22 - 28	\$ 5,000 per calendar day
29 - over	\$10,000 per calendar day

60. Any such penalty shall be due and payable twenty-one (21) calendar days following receipt of a written demand by the Department. Payment of

stipulated penalties shall be made by a cashier's or certified check payable to the "Treasurer, State of New Jersey".

VI. Force Majeure

61. If any event as specified in the following paragraph occurs which GAF believes will or may cause delay in the compliance with any provision of this Administrative Consent Order, GAF shall notify the Department in writing within seven (7) calendar days of the delay or anticipated delay, as appropriate, referencing this paragraph and describing the anticipated length of the delay, the precise cause or causes of the delay, any measures taken or to be taken to minimize the delay, and the time required to take any such measures to minimize the delay. GAF shall take all necessary action to prevent or minimize any such delay.

62. If the Department finds that: (a) GAF has complied with the notice requirements of the preceding paragraph, (b) GAF has taken all necessary action to prevent or minimize the delay, and; (c) that any delay or anticipated delay has been or will be caused by fire, flood, riot, strike or other circumstances beyond the control of GAF, the Department shall extend the time for performance hereunder for a period no longer than the delay resulting from such circumstances. If the Department determines that either GAF has not complied with the notice requirements of the preceding paragraph, or the event causing the delay is not beyond the control of GAF, failure to comply with the provisions of this Administrative Consent Order shall constitute a breach of the requirements of this Administrative Consent Order. The burden of proving that any delay is caused by circumstances beyond the control of GAF and the length of any such delay attributable to those circumstances shall rest with GAF. Increases in the cost or expenses incurred by GAF in fulfilling the requirements of this Administrative Consent Order shall not be a basis for an extension of time. Delay in an interim requirement shall not automatically justify or excuse delay in the attainment of subsequent requirements. Force Majeure shall not include nonattainment of the goals, standards, guidelines and requirements set forth in the appendices attached hereto.

VII. Reservation of Rights

63. If GAF fails to pay stipulated penalties pursuant to paragraph 60, the Department may institute civil proceedings to collect such penalties or assess civil administrative penalties for the violations of this Administrative Consent Order; the Department may also bring an action in New Jersey Superior Court pursuant to N.J.S.A. 58:10A-10 to enforce the provisions of this Administrative Consent Order.

64. GAF's payment of stipulated penalties pursuant to this Administrative Consent Order shall not preclude the Department from electing to pursue any injunctive relief to enforce the terms of this Administrative Consent Order.

65. The Department reserves the right to unilaterally terminate this Administrative Consent Order in the event that the Department gives GAF notice that GAF has violated a term of this Administrative Consent Order and GAF does not promptly remedy such violation.

66. Nothing in this Administrative Consent Order shall preclude the Department from seeking civil or civil administrative penalties against GAF.

67. This Administrative Consent Order shall not be construed to affect or waive the claims of federal or State natural resource trustees against any party for damages for injury to, destruction of, or loss of natural resources. Further, this Administrative Consent Order shall not be construed to affect or waive any claims, rights or causes of action which the State of New Jersey or the Department may have or acquire against GAF by reason of the assertion of a claim against the State of New Jersey or the Department by a third party.

68. The Department reserves the right to require GAF to take or arrange for the taking of, any and all additional measures should the Department determine that such actions are necessary to protect human health or the environment. Nothing in this Administrative Consent Order shall constitute a waiver of any statutory right of the Department to require GAF to undertake such additional measures should the Department determine that such measures are necessary. GAF's refusal to undertake such additional measures as may be beyond the scope of this Administrative Consent Order shall not be a violation of this Administrative Consent Order.

VIII. General Provisions

69. This Administrative Consent Order shall be binding on GAF, its principals, directors, officers, agents, successors, assignees and any trustee in bankruptcy or receiver appointed pursuant to a proceeding in law or equity.

70. GAF shall perform all work conducted pursuant to this Administrative Consent Order in accordance with prevailing professional standards.

71. In accordance with N.J.S.A. 45:8-45, all plans or specifications involving professional engineering, submitted pursuant to this Administrative Consent Order, shall be submitted affixed with the seal of a professional engineer and any plan involving land surveying submitted pursuant to this Administrative Consent Order shall be submitted affixed with the seal of a land surveyor licensed pursuant to the provisions of N.J.S.A. 45:8-1 et seq.

72. GAF shall conform all actions pursuant to this Administrative Consent Order with all applicable Federal, State, and local laws and regulations. GAF shall be responsible for obtaining all necessary permits, licenses and other authorizations required to comply with this Administrative Consent Order.

73. All appendices referenced in this Administrative Consent Order, as well as all reports, work plans and documents required under the terms of this Administrative Consent Order are, upon approval by the Department, incorporated into this Administrative Consent Order by reference and made a part hereof.

74. Each field activity to be conducted pursuant to this Administrative Consent Order shall be coordinated by an onsite professional(s) with experience relative to the particular activity being conducted at the site each day, such as experience in the area of hydrogeology, geology, environmental controls, risk analysis, health and safety or soils.

75. Upon the receipt of a written request from the Department, GAF shall submit to the Department all data and information concerning pollution at and/or emanating from the site, or which has emanated from the site, including raw sampling and monitor data, whether or not such data and information was developed pursuant to this Administrative Consent Order.

76. GAF shall make available to the Department all technical records and contractual documents maintained or created by GAF or its agents in connection with this Administrative Consent Order.

77. GAF shall preserve, during the pendency of this Administrative Consent Order and for a minimum of six (6) years after its termination, all data, records and documents in their possession or in the possession of their divisions, employees, agents, accountants, contractors, or attorneys which relate in any way to the implementation of work under this Administrative Consent Order, despite any document retention policy to the contrary. After this six year period, GAF shall notify the Department within thirty (30) calendar days prior to the destruction of any such documents. If the Department requests in writing that some or all of the documents be preserved for a longer time period, GAF shall comply with that request. Upon receipt of a written request by the Department, the GAF shall submit to the Department all non-privileged records or copies of any such records.

78. No obligations imposed by this Administrative Consent Order (with the exception of paragraph(s) 58 and 59 [i.e., first stipulated penalty number and administrative oversight paragraph] are intended to constitute a debt, claim, penalty or other civil action which should be limited or discharged in a bankruptcy proceeding. All obligations imposed by this Administrative Consent Order shall constitute continuing regulatory obligations imposed pursuant to the police powers of the State of New Jersey intended to protect human health or the environment.

79. In addition to the Department's statutory and regulatory rights to enter and inspect, GAF shall allow the Department and its authorized representatives access to the site at all times for the purpose of monitoring GAF's compliance with this Administrative Consent Order and/or to perform any remedial activities GAF fails to perform as required by this Administrative Consent Order. GAF shall have the right to monitor the activities of the Department and its representatives and GAF agrees that it shall not interfere with such activities. The Department agrees that it shall observe the same personal safety equipment requirements as are applicable to GAF's employees, and GAF agrees to make available to the Department such equipment.

80. GAF shall not construe any informal advice, guidance, suggestions, or comments by the Department, or by persons acting on behalf

of the Department, as relieving GAF of its obligation to obtain written approvals as required herein, unless the Department specifically relieves GAF of such obligations, in writing in accordance with the following paragraph.

81. No modification or waiver of this Administrative Consent Order shall be valid except by written amendment to this Administrative Consent Order duly executed by GAF and the Department.

82. GAF hereby consents to and agrees to comply with this Administrative Consent Order which shall be fully enforceable as an Order in the New Jersey Superior Court upon the filing of a summary action for compliance pursuant to N.J.S.A. 13:1D-1 et seq., the Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq. and/or the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq.

83. In the event that the Department determines that a public meeting concerning the cleanup of the site is necessary at any time, GAF shall ensure that the GAF's appropriate representative is prepared, available, and participates in such a meeting upon notification from the Department of the date time and place of such meeting. GAF's representative shall not be required at any such meeting to answer questions on matters which are beyond the scope of this Administrative Consent Order, provided that GAF's representative shall state the reason for its refusal to answer the question at the public meeting.

84. GAF waives its rights to an administrative hearing concerning the entry of this Administrative Consent Order pursuant to N.J.S.A. 52:14B-1 et seq. and N.J.S.A. 58:10A-1 et seq.

85. GAF agrees not to contest the authority or jurisdiction of the Department to issue this Administrative Consent Order; GAF further agrees not to contest the terms or conditions of this Administrative Consent Order, except as to interpretation or application of such terms and conditions in any action brought by the Department to enforce the provisions of this Administrative Consent Order. Provided, however, GAF expressly reserves the right, entirely at its own risk, not to comply with any direction or decision of the Department, and to defend itself in any action brought to enforce such direction or decision which GAF believes is arbitrary, capricious or unreasonable. It is understood that the rights herein are available to GAF only in an enforcement proceeding brought by the Department and not otherwise. In any such enforcement proceedings, GAF shall have the burden of proof to establish that any direction or decision of the Department was arbitrary, capricious or unreasonable.

In the event that the Department prevails in any such enforcement action, GAF shall be liable for any stipulated penalties which accrued during the period of non-compliance. In addition and upon the request of the Department, GAF agrees to implement such measures as may be directed by the Department to accelerate the rate of the work so as to overcome the delay arising out of GAF's refusal to comply with the direction or decision of the Department. Should GAF prevail in any such enforcement proceeding initiated by the Department, the Department agrees to refund any

stipulated penalties paid by GAF for the alleged violation which precipitated the initiation of the enforcement action.

Similarly, in the event that GAF prevails in any proceeding in which it is alleged that the Department acted arbitrarily, capriciously or unreasonably in exercising its right under Paragraph 53 to draw on the letter of credit, the Department agrees to refund, to the account of the letter of credit, the funds so drawn relative to that contested enforcement action. This provision shall not be construed to provide for reimbursement of the account of the letter of credit for monies drawn down for any activity other than that which is the subject of the contested enforcement proceeding in which GAF prevails, nor shall it be construed to require that the Department refund such portion of the funds as may have been expended in a manner that was not arbitrary, capricious or unreasonable.

GAF agrees that it shall not seek to interfere with nor delay the performance of any work with regard to the Site whether by the Department or by others and whether such work is disputed pursuant to this paragraph or not. Should the Department, in the exercise of its sole discretion, request that GAF proceed with any work which is not in dispute pursuant to the terms of this paragraph, GAF agrees that it shall timely comply with any such request.

This paragraph shall not be construed as a limitation upon any other right or remedy that the Department may have in seeking redress for GAF's refusal to comply with any direction or decision of the Department.

86. GAF agrees that this Administrative Consent Order obligates GAF to consent to and to modify its draft and final reports to conform with the Department's comments. GAF may express its disagreement with such comments if it so desires, provided that any such expression shall not be construed to be any limitation, impairment or condition upon GAF's obligations hereunder.

87. It is the mutual intention of GAF and the Department that the investigatory and cleanup requirements of this Administrative Consent Order shall be in conformity with and shall satisfy the applicable requirements of the statutes and regulations which form the basis for this Administrative Consent Order, i.e., the Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq.; the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq.; and the Spill Compensation and Control Act, N.J.S.A. 58:10-23.11 et seq. Where the requirements conflict, the more stringent requirement shall apply. In no event shall this provision be construed as a limitation, impairment or waiver of the statutory or regulatory rights of the Department including but not limited to those reserved by Paragraph 68 or otherwise.

88. Except with regard to proceedings to enforce this Administrative Consent Order, in entering this Administrative Consent Order, GAF neither admits nor denies the findings made by the Department herein, nor does GAF admit any violations of law or any liability under any of the cited statutory authorities or otherwise.

89. Should the provisions of the Environmental Cleanup Responsibility Act ("ECRA"), N.J.S.A. 13:1K-6 et seq. become applicable to the Site at

any time, GAF shall comply with any and all ECRA requirements, including but not limited to substantive, procedural, administrative and environmental requirements; however it is the mutual intention of GAF and the Department that the investigatory and cleanup requirements of this Administrative Consent Order shall be in conformity with the environmental requirements of ECRA with respect to soil and ground water contamination addressed pursuant to this Administrative Consent Order. Should the environmental requirements of ECRA conflict with any other applicable requirements, the more stringent requirements shall apply. In no event shall this provision be construed as a limitation, impairment or waiver of the statutory or regulatory rights and requirements of the Department pursuant to ECRA.

90. GAF shall provide a copy of this Administrative Consent Order to each contractor retained to perform the work required by this Administrative Consent Order and shall condition all contracts and subcontracts entered for the performance of such work upon compliance with the terms and conditions of this Administrative Consent Order. GAF shall be responsible to the Department for ensuring that their contractors and subcontractors perform the work herein in accordance with this Administrative Consent Order.

91. GAF shall give written notice of this Administrative Consent Order to any successor in interest within 90 calendar days prior to transfer of ownership of GAF's facilities which are the subject of this Administrative Consent Order, and shall simultaneously verify to the Department that such notice has been given. This requirement shall be in addition to any other statutory or regulatory requirements arising from the transfer of ownership of GAF's facilities.

92. The requirements of this Administrative Consent Order shall be deemed satisfied upon the receipt by GAF of written notice from the Department that GAF has demonstrated, to the satisfaction of the Department, that the obligations imposed by this Administrative Consent Order have been completed by GAF.

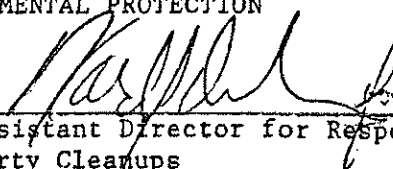
93. GAF shall submit to the Department, along with the executed original Administrative Consent Order, the appropriate documentary evidence (such as a corporate resolution, see Appendix H for an example) that the signatory for GAF has the authority to bind GAF to the terms of this Administrative Consent Order.

94. This Administrative Consent Order shall become effective upon the execution by the Department.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

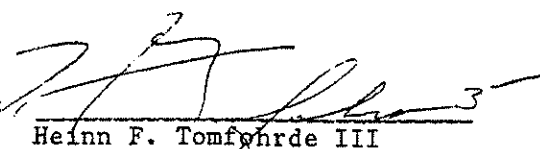
Date: June 16, 1989

By:

 6/19/89
Assistant Director for Responsible
Party Cleanups
Division of Hazardous Waste
Management

By: GAF CHEMICALS CORPORATION

Name:


Heinn F. Tomfahnde III


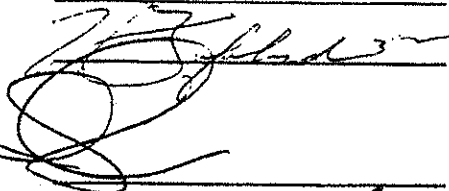

Title: GAF CHEMICALS CORPORATION
President

CERTIFICATE

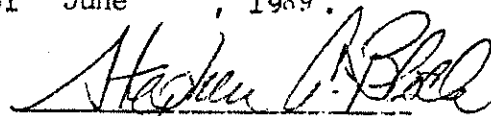
The undersigned, the duly elected and acting Assistant Secretary of GAF Chemicals Corporation, a Delaware corporation, does certify as follows:

Samuel J. Heyman, Heinn F. Tomfohrde, Salvatore C. Bellini and Irving Kagan are duly elected, qualified and acting officers of GAF Chemicals Corporation in the capacities set forth opposite their respective names and the signatures set opposite their respective names are their true and genuine signatures.

Samuel J. Heyman	Chairman
Heinn F. Tomfohrde	President
Irving Kagan	Senior Vice President, General Counsel and Secretary
Salvatore C. Bellini	Vice President and Controller

IN WITNESS WHEREOF, I have hereunto signed my name and affixed the seal of GAF Chemicals Corporation this 16th day of June, 1989.


Stephen A. Block
Assistant Secretary

I, Deborah D. Lawson, Assistant Secretary of GAF Chemicals Corporation, do hereby certify that Stephen A. Block is the duly elected, qualified and acting Assistant Secretary of GAF Chemicals Corporation and that the signature appearing above opposite his name is his genuine signature.

IN WITNESS WHEREOF, I have hereunto signed my name this 16th day of June, 1989.


Deborah D. Lawson